

Art Unit: 1632

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1, 2 and 24, drawn to a method for humanizing the VH and VL variable regions of an animal antibody of known sequence, identifying VH and VL regions of human antibody with smaller RMS and inserting regions CDR of the animal antibody in the human sequence.

Group II, claim(s) 8, drawn to a humanized anti-NGF antibody comprising the sequence of SEQ ID No. 17 and SEQ ID No. 18, or a fragment thereof which maintains NGF binding activity.

Group III, claim(s) 9, drawn to a humanized anti-TrkA antibody comprising the sequence of SEQ ID No. 37 and SEQ ID No. 38, or a fragment thereof which maintains TrkA binding activity.

Group IV, claim(s) 10, drawn to an immunotoxin comprising a cytotoxic agent bound to a humanized anti-TrkA antibody comprising the sequence of SEQ ID No. 37 and SEQ ID No. 38, or a fragment thereof which maintains TrkA binding activity.

Group V, claim(s) 11, drawn to a method for treating inflammation in a subject by administering a humanized anti-NGF antibody comprising the sequence of SEQ ID No. 17 and SEQ ID No. 18, or a fragment thereof which maintains NGF binding activity.

Group VI, claim(s) 12, drawn to a method for treating pain in a subject by administering a humanized anti-NGF antibody comprising the sequence of SEQ ID No. 17 and SEQ ID No. 18, or a fragment thereof which maintains NGF binding activity.

Group VII, claim(s) 13, drawn to a method for treating a tumor in a subject by administering a humanized anti-NGF antibody comprising the sequence of SEQ ID No. 17 and SEQ ID No. 18, or a fragment thereof which maintains NGF binding activity.

Group VIII, claim(s) 14, drawn to a method for treating an HIV induced pathology in a subject by administering a humanized anti-NGF antibody comprising the sequence of SEQ ID No. 17 and SEQ ID No. 18, or a fragment thereof which maintains NGF binding activity.

Art Unit: 1632

Group IX, claim(s) 15, drawn to a method for treating inflammation in a subject by administering a humanized anti-TrkA antibody comprising the sequence of SEQ ID No. 37 and SEQ ID No. 38, or a fragment thereof which maintains TrkA binding activity.

Group X, claim(s) 16, drawn to a method for treating pain in a subject by administering a humanized anti-TrkA antibody comprising the sequence of SEQ ID No. 37 and SEQ ID No. 38, or a fragment thereof which maintains TrkA binding activity.

Group XI, claim(s) 17, drawn to a method for treating a tumor in a subject by administering a humanized anti-TrkA antibody comprising the sequence of SEQ ID No. 37 and SEQ ID No. 38, or a fragment thereof which maintains TrkA binding activity.

Group XII, claim(s) 18, drawn to a polynucleotide encoding a humanized anti-NGF antibody comprising the sequence of SEQ ID No. 17 and SEQ ID No. 18, or a fragment thereof which maintains NGF binding activity.

Group XIII, claim(s) 19, drawn to a polynucleotide encoding a humanized anti-TrkA antibody comprising the sequence of SEQ ID No. 37 and SEQ ID No. 38, or a fragment thereof which maintains TrkA binding activity.

Group XIV, claim(s) 20, drawn to a transgenic animal expressing a humanized anti-NGF antibody comprising the sequence of SEQ ID No. 17 and SEQ ID No. 18, or a fragment thereof which maintains NGF binding activity.

Group XV, claim(s) 21, drawn to a transgenic animal expressing a humanized anti-TrkA antibody comprising the sequence of SEQ ID No. 37 and SEQ ID No. 38, or a fragment thereof which maintains TrkA binding activity.

Group XVI, claim(s) 22, drawn to a cell expressing a humanized anti-NGF antibody comprising the sequence of SEQ ID No. 17 and SEQ ID No. 18, or a fragment thereof which maintains NGF binding activity.

Group XVII, claim(s) 23, drawn to a cell expressing a humanized anti-TrkA antibody comprising the sequence of SEQ ID No. 37 and SEQ ID No. 38, or a fragment thereof which maintains TrkA binding activity.

2. The inventions listed as Groups I-XVII do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The putative special technical feature common to group I-XVII is a humanized anti-NGF antibody comprising the sequence of SEQ ID No. 17 and SEQ ID No. 18, or a fragment thereof which maintains NGF binding activity or a humanized anti-TrkA antibody comprising the sequence of SEQ ID No. 37 and SEQ ID No. 38, or a fragment thereof which maintains TrkA binding activity.

Art Unit: 1632

Wu et al., 2000 (UniProt Accession No. Q9UL72, computer printout, page 6) discloses a human immunoglobulin heavy chain variable region, UniProt Accession No. Q9UL72, which is 72.1% identical to amino acid 1-122 of SEQ ID No. 17. Gorman et al., 1992 (Geneseq Accession No. AAR22755, computer printout, pages 7-8) discloses a humanized antibody binding to human CD4 antigen, the humanized antibody, Geneseq Accession No. AAR22755, is 87.9% identical to amino acid 1-107 of SEQ ID No. 18. Shelton, D., 2002 (WO 02/096458 A1, IDS) discloses a method of using anti-NGF antibodies in the treatment of various NFG-related disorders (e.g. abstract). The anti-NGF antibody can bind to hNGF, and the antibody maybe an antibody fragment, such as Fab, Fab', Fv fragments, diabodies, single chain antibody molecules and multispecific antibodies formed from antibody fragments. The antibody can also be humanized or chimeric (e.g. p. 3, lines 23-31, p. 31).

Schroeder et al., 1990 (PIR Accession No. C36005, computer printout out page 2) discloses a human Ig heavy chain variable region, PIR Accession No. C36005 is 82.9% identical to amino acid 1-123 of SEQ ID No. 37. Nakamura et al., 1994 (Geneseq Accession No. AAR53345, computer printout page 7) discloses a humanized antibody specific for ganglioside GM2, Geneseq Accession No. AAR53345, which is 91.5% identical to amino acid 1-106 of SEQ ID No. 38. Novak, M., 2000 (WO 00/73344 A3, IDS) discloses monoclonal antibody, synthetic and biotechnological derivatives thereof, able to recognize and bind TrkA, and the monoclonal antibody or derivative thereof is prepared according to the variable region of the light chain and heavy chain. The synthetic or biotechnological derivative comprises at least one region determining the complementarity of the antibody (CDR) and act as an antagonist for the binding of NGF to TrkA (e.g. p. 19).

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to prepare a humanized anti-NGF antibody comprising the sequence of SEQ ID No. 17 and SEQ ID No. 18, or a fragment thereof which maintains NGF binding activity in view of the teachings of Wu, Gorman and Shelton.

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to prepare a humanized anti-TrkA antibody comprising the sequence of SEQ ID No. 37 and SEQ ID No. 38, or a fragment thereof which maintains TrkA binding activity in view of the teachings of Schroeder, Nakamura and Novak.

Therefore, there is no special technical feature contributed by the instant invention over the prior art. Thus, Groups I-XVII do not relate to a single general inventive concept under PCT Rule 13.1.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement may be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To preserve a right to petition, the election must be made with traverse. If the reply does not

Art Unit: 1632

distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

3. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

4. The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and the product claims are subsequently found allowable, withdrawn process claims that depend from or otherwise require all the limitations of the allowable product claim will be considered for rejoinder. All claims directed to a nonelected process invention must require all the limitations of an allowable product claim for that process invention to be rejoined.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103 and 112. Until all claims to the elected product are found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained.

Withdrawn process claims that are not commensurate in scope with an allowable product claim will not be rejoined. See MPEP § 821.04(b). Additionally, in order to retain the right to rejoinder in accordance with the above policy, applicant is advised that the process claims should be

Art Unit: 1632

amended during prosecution to require the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.** Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shin-Lin Chen whose telephone number is (571) 272-0726. The examiner can normally be reached on Monday to Friday from 9:30 am to 6 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Paras can be reached on (571) 272-4517. The fax phone number for this group is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547.

Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public.

For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.

Application/Control Number: 10/583,618

Page 7

Art Unit: 1632

Shin-Lin Chen, Ph.D.

/Shin-Lin Chen/

Primary Examiner

Art Unit 1632